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Abstract :

Future aviation turbine fuels are expected to have higher aromatic contents than those presently allowed in order to increase the availability of such fuels. However, the use of high aromatic fuels in aircraft gas turbine engine combustors results in increased soot, as a product of combustion, which in turn affects the turbine engine performance and durability of its components. The aviation turbine fuel processed from the Bombay High crude has aromatic contents in excess of current specification limits. The work reported herein provides results of tests carried out on a typical aircraft engine can combustor (RD-11F) with special reference to combustor liner metal temperatures obtained under simulated engine conditions.